

Docket No.: 050069-0111



PATENT

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES**

In re Application of	:	Customer Number: 20277
Toshihiro SADAOKA, et al.	:	Confirmation Number: 4541
Application No.: 10/089,245	:	Tech Center Art Unit: 1616
Filed: August 21, 2002	:	Examiner: Choi, Frank I.
For: SEBUM ABSORBING PAPER COMBINING HYDROXYAPATITE	:	

**TRANSMITTAL OF APPEAL BRIEF**

Mail Stop Appeal Brief  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

Submitted herewith is Appellant's Appeal Brief in support of the Notice of Appeal filed March 17, 2006. The Appeal Brief fee of \$500.00 was previously charged on December 15, 2004.

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due under 37 C.F.R. §§ 1.17 and 41.20, and in connection with the filing of this paper, including extension of time fees, to Deposit Account 500417 and please credit any excess fees to such deposit account.

Respectfully submitted,

McDERMOTT WILL & EMERY LLP

Bernard P. Codd

Registration No. 46,429

600 13<sup>th</sup> Street, N.W.  
Washington, DC 20005-3096  
Phone: 202.756.8000 BPC:kap  
Facsimile: 202.756.8087  
**Date: May 17, 2006**

**Please recognize our Customer No. 20277  
as our correspondence address.**



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**APPEAL BRIEF**

Mail Stop Appeal Brief  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

This Appeal Brief is submitted in support of the Notice of Appeal filed March 17, 2006, wherein Appellant appeals from the Primary Examiner's rejection of claims 1-3.

**Real Party In Interest**

This application is assigned to Shiseido Company, Ltd. by assignment recorded on August 21, 2002, at Reel 013219, Frame 0957.

**Related Appeals and Interferences**

Appellants are unaware of any related Appeals or Interferences.

### **Status of Claims**

Claims 1-3 are pending and finally rejected in this Application. It is from the final rejection of claims 1-3 that this Appeal is taken.

The Examiner required a declaration be filed under 37 C.F.R. § 1.132 because the Examiner has asserted that there is an ambiguity as to the issue of inventorship. The Examiner, however, has withdrawn the rejections under 35 U.S.C. § 102(f). There being no appealable rejections under 35 U.S.C. § 102(f), a petition under 37 C.F.R. § 1.181 is being concurrently filed requesting supervisory review of the Examiner's requirement of a declaration.

### **Status of Amendments**

The Advisory Action mailed March 1, 2006 did not indicate whether the After Final Amendment filed February 17, 2006 would be entered. The Advisory Action, however, did indicate that the After Final Amendment overcame the rejection under 35 U.S.C. § 112, second paragraph. During a telephone interview on March 10, 2006, Examiner Choi notified the undersigned that the February 17, 2006 After Final Amendment would be entered upon the filing of an appeal.

### **Summary of Claimed Subject Matter**

Independent claim 1 is the only independent claim. Independent claim 1 is directed to a sebum absorbing paper used for applying to the skin or for cleaning the skin and is capable of selectively absorbing oxidized sebum from other types of sebum. The paper has a basis weight of 5 to 25 g/m<sup>2</sup> and contains 1 to 30 % by weight inorganic filler that includes 50 to 100 % by weight of hydroxyapatite (page 2, lines 8 to 25 of the written description).

Sebum is an oil/lipid excreted by glands in the human skin. The sebum forms a film on the surface of the skin that prevents transepidermal water loss. Thus, sebum is important in retaining moisture of the skin. Over time, however, sebum can become oxidized from exposure to air and light, and this oxidized sebum can plug pores in the skin and/or irritate the skin (page 1, line 21 to page 2, line 6 of the written description).

Conventional practices of cleaning the skin in this art involve using a thin and soft sebum absorbing paper. The paper although transparent, becomes more transparent after absorbing sebum, which allows the user to visually recognize that sebum has been absorbed. A problem with conventional sebum absorbing paper is that the paper not only absorbs old, oxidized sebum, but new sebum as well. Since new sebum is beneficial to the skin, there was a need for a sebum absorbing paper that selectively absorbs oxidized sebum (page 1, line 14 to page 2, line 4 of the written description).

The present invention addresses and solves the problem of selectively absorbing oxidized sebum by provision of hydroxyapatite as a substantial portion of inorganic filler within the paper. The hydroxyapatite selectively absorbs lipid peroxide among several types of lipid, which allows the paper to selectively absorb oxidized sebum from among several types of sebum generated by the skin (page 3, line 25 to page 4, line 3).

#### **Grounds of Rejection To Be Reviewed By Appeal**

Claims 1-3 were rejected under 35 U.S.C. § 103 for obviousness based upon EP 0393723 (hereinafter EP '723) in view of JP 11-137336 (hereinafter JP '336), Fujii et al. (U.S. Pat. No. 5,041,252) and further in view of JP 63-188628 (hereinafter JP '628) or JP 63-027411 (hereinafter JP '411).

**Argument**

**THE REJECTION OF CLAIMS 1-3 UNDER 35 U.S.C. § 103 FOR OBVIOUSNESS BASED UPON EP '723 IN  
VIEW OF JP '336, FUJII ET AL., JP '628 OR JP '411**

For the convenience of the Honorable Board in addressing this rejection, claims 2-3 stand or fall together with independent claim 1.

**The Examiner's Rejection in the Final Office Action**

The Examiner asserted that EP '723 discloses papers and nonwoven fabrics or incorporating calcium phosphate compounds having a particle size of 0.1 to 30  $\mu\text{m}$  as fillers in an amount of 10 to 80 % by weight. The Examiner further asserted that EP '723 discloses hydroxyapatite, a paper basis weight of 20  $\text{g/m}^2$  or more, and talc. The paper can be used to absorb oil-soluble substances and can be used in diapers, sanitary napkins, and pads for bedsores.

The Examiner averred that Fujii et al. disclose nonwoven fabric with apatite additive and a basis weight of preferably 10 to 300  $\text{g/m}^2$  for use in a baby's napkin, sanitary napkins, and toilet paper.

The Examiner maintained that JP '336 discloses a paper used to absorb oil from the skin containing talc having an average particle size of 1.2 microns.

The Examiner asserted that JP '628 or JP '411 disclose that hydroxyapatite is used in cosmetic products to absorb oxidized lipids to treat acne.

The Examiner concluded that the prior art suggests the claimed sebum absorbing paper because it is known to use papers containing hydroxyapatite and talc as absorbants, papers containing talc are known to be used for absorbing oil from skin and that hydroxyapatite is used in cosmetic products to absorb oxidized lipids. Therefore, one of ordinary skill in the art would have been motivated to

modify the prior art with the expectation that a paper containing hydroxyapatite and talc would be suitable for absorbing oxidized sebum from the skin because hydroxyapatite powders are known to be effective in absorbing oxidized lipids from the skin.

### Appellants' Response

The Examiner's primary reference, EP '723, is not directed to a paper used for applying to skin or for cleaning the skin, as recited in claim 1. Instead, as described in fields of application (a)-(g) on pages 9-10 of EP '723, the disclosed paper with hydroxyapatite is used for (a) deodorants, (b) filter mediums, (c) adsorbents, (d) substitute materials for biomaterials, (e) food wrapping papers, (f) articles in a bioindustry, and (g) articles in a medical treatment. Furthermore, as recited in claim 1, the claimed paper is capable of selectively absorbing oxidized sebum (e.g., lipids excreted from sebaceous glands in the skin) from other types of sebum; however, this feature is neither taught nor suggested by EP '723.

The Examiner's secondary reference of JP '336 was cited to teach a paper containing talc used to remove oil from the skin. However, JP '336 is completely silent with regard to the use of hydroxyapatite.

The Examiner's tertiary reference Fujii et al. is relied on as teaching that nonwoven fabric includes paper because the instant specification (page 4) discloses that the fiber used in the sebum absorbing paper includes cotton, acrylic fiber, rayon, and silk. Fujii et al., however, merely disclose implant materials having a good compatibility with a living organism. The reference to Fujii et al. is **remote** to sebum absorbing paper and does not suggest selectively absorbing oxidized sebum from other types of sebum, as required by claim 1.

Tertiary references, JP '628 or JP '411, were relied upon by the Examiner to teach that hydroxyapatite is used in a cosmetic product to absorb oxidized lipids. JP '411, entitled "Dust Preparation for Skin External Use," discloses a powdery preparation that is applied to the skin to "prevent or improve

skin roughness." It is noted that JP '411 discloses a product that is not part of a paper, and JP '411 does not suggest that hydroxyapatite would be effective in selectively absorbing oxidized sebum from other types of sebum, as required by claim 1.

JP '628 is also not related to a paper product. Instead, JP '628, entitled "Drug for Skin External Use," is directed to a blend of a hydroxyapatite power with antiphlogistics and/or keratin release agents. As described in the abstract, the product can be in the form of a shape of cream, ointment, lotion, tonic, powder. JP '628, furthermore, does not suggest that the hydroxyapatite can be used as a filler in a paper used to selectively absorb oxidized sebum from other types of sebum, as required by claim 1.

In summary, the applied references describe a non-skin related paper (i.e., EP '723), a paper to be used for cleaning the skin (JP '336), implant materials having a good compatibility with a living organism (Fujii et al.), and a pair of non-paper related products (i.e., JP '628 and JP '411).

With regard to the Examiner's prima facie obviousness assertion, it is submitted that the mere identification of various claim features in disparate references is insufficient to establish the requisite realistic motivation to support the ultimate legal conclusion of obviousness under 35 U.S.C. § 103. *Grain Processing Corp. v. American-Maize Products Co.*, 840 F.2d 902, 5 USPQ2d 1788 (Fed. Cir. 1988). The Examiner's assertion "every element of the invention has been collectively taught" in itself is not dispositive, as it has been well recognized that "virtually all [inventions] are combinations of old elements." *In re Rouffet*, 149 F.3d 1350, 47 USPQ2d 1453 (Fed. Cir. 1998) (quoting *Environmental Designs, Ltd. v. Union Oil*, 713 F.2d 693, 218 USPQ 865 (Fed. Cir. 1993)).

The Examiner's stated motivation to combine the cited references is that "one of ordinary skill in the art would have been motivated to modify the prior art as above with the expectation that a paper containing hydroxyapatite and talc would be suitable for absorbing oxidized sebum from the skin." This statement merely describes an expected end result taught by the present disclosure without explaining



why this result would have been expected (i.e., the rationale that would have led one skilled in the art to this result).

EP '723 is not directed to a paper used for applying to skin or for cleaning the skin. Despite the discussion of many different uses for the disclosed paper, including use as a filter medium and a food wrapping paper, EP '723 is completely silent about using the disclosed paper for applying to the skin or for cleaning the skin. Although EP '723 discloses that the "functional paper shows preferably a basis weight of 20g/m<sup>2</sup> or more," which falls within the claimed 5 to 25 g/m<sup>2</sup>, the specific examples disclosed by EP '723 are all 48 g/m<sup>2</sup> or greater.<sup>1</sup> This weight of paper in the examples found in EP '723, although presumably appropriate for the heavier duty applications discussed in EP '723, would not have been recognized as appropriate for use on the skin for absorbing sebum, since sebum absorbing papers conventionally are thin and soft.

Based upon the absence of a teaching in EP '723 that the disclosed paper can be used for skin cleansing and the paper basis weights disclosed in the examples of EP '723, which are too heavy to be previously considered as sebum absorbing papers, one skilled in the art would not have recognized EP '723 as being directed to a paper used for applying to the skin or for cleaning the skin, as recited in claim 1. Thus, one skilled in the art of skin cleansing with paper would not look to a reference (i.e., EP '723) that teaches a product that is related neither to skin cleansing nor sebum removal.

References JP '628 and JP '411, cited to teach that hydroxyapatite absorbs oxidized lipids, are completely silent about using hydroxyapatite as a filler in a sebum absorbing paper. Instead, both these references disclose hydroxyapatite in the form of a powder that is directly applied to the skin or is applied via another delivery system, such with a cream, ointment, or lotion. These references, although disclosing many different systems in which the hydroxyapatite can be delivered to the skin, are conspicuously silent

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<sup>1</sup> 85 g/m<sup>2</sup> in Example 4; 99 g/m<sup>2</sup> in Example 6; 93 g/m<sup>2</sup> in Example 9, 101 g/m<sup>2</sup> in Example 10; 103 g/m<sup>2</sup> in Example 11; 105 g/m<sup>2</sup> in Example 12, 98 g/m<sup>2</sup> in Example 13; and 48 g/m<sup>2</sup> in Example 14.

with regard to the use of hydroxyapatite as a filler for a sebum absorbing paper. The Examiner, however, has failed to explain why one having ordinary skill in the art would believe, with a reasonable expectation of success, that a product taught as being directly applied to the skin or used in other deliver systems *with the notable exception of paper*, could be applied to the skin with paper.

Notwithstanding that the Examiner has failed to supply a realistic motivation to combine the applied prior art to arrive at the claimed invention, it is submitted that even if the prior art were combined in the manner suggested by the Examiner, the claimed invention would not result. Claim 1 recites that the paper is selectively capable of absorbing oxidized sebum from other types of sebum. The problem this limitation is intended to solve (i.e., minimizing the absorption of other types of sebum, such as new sebum) has not been recognized by the prior art, and the applied prior art fails to explicitly teach selectively absorbing oxidized sebum.

Furthermore, even if one skilled in the art were to add hydroxyapatite to a sebum absorbing paper with knowledge of the teachings of the applied prior art, the record does not establish that such a paper would selectively absorb oxidized sebum from other types of sebum. The applied prior art discloses many different types of fillers for the paper (see, for example, page 9, lines 9-10 of EP '723) that can be combined with hydroxyapatite, and these fillers do not necessarily selectively absorb oxidized sebum from other types of sebum. There is no reason to conclude that the Examiner's proposed sebum absorbing paper, although including hydroxyapatite, would selectively absorb oxidized sebum from other types of sebum.

In order to establish the requisite realistic motivation, the Examiner must make clear and particular **factual findings** as to a **specific understanding or specific technological principle** and then, based upon such **facts**, explain **why** one having ordinary skill in the art would have been realistically motivated to modify a **specific prior art**, in this case presumably the papers and

nonwoven fabrics of EP '723, to arrive at the claimed invention. *In re Lee*, 237 F.3d 1338, 61 USPQ2d 1430 (Fed. Cir. 2002); *Ecolochem Inc. v. Southern California Edison, Co.* 227 F.3d 1361, 56 USPQ2d 1065 (Fed. Cir. 2000); *In re Kotzab*, 217 F.3d 1365, 55 USPQ 1313 (Fed. Cir. 2000); *In re Dembiczak*, 175 F.3d 994, 50 USPQ2d 1614 (Fed. Cir. 1999); *In re Rouffet*, 149 F.3d 1350, 47 USPQ2d 1453 (Fed. Cir. 1998). This burden has **not** been discharged. As pointed out above, the Examiner has identified features in the applied references and then announced the obviousness conclusion without complying with judicial requirements requiring clear and particular factual findings and reasons based upon such findings. Instead what the Examiner has done is pointed to isolated features and then announced the obviousness conclusion. This approach is **legally erroneous**. *In re Dembiczak, supra*; *Grain Processing Corp. v. American-Maize Products Co.*, 840 F.2d 902, 5 USPQ2d 1788 (Fed. Cir. 1988).

Appellants would stress that none of the applied prior art expresses any recognition for the problem of selectively absorbing oxidized sebum from other types of sebum. This failure of the applied prior art underscores the lack of motivation. As held by the Court of Appeals for the Federal Circuit in *Ecolochem Inc. v. Southern California Edison, Co. supra*, at 56 USPQ2d 1076:

...There must still be evidence that “a skilled artisan,” confronted with the **same problems as the inventor** and with no knowledge of the claimed invention, would select the elements from the cited prior art references for a combination in the manner claimed.” (emphasis applied)

The Examiner does not gainsay that the applied references are mute as to selectively absorbing oxidized sebum from other types of sebum. Nevertheless, the Examiner assumes that the claimed invention would have been obvious because the Examiner has identified perceived features of the claimed invention in these disparate references. There is no automatic motivation, particularly in the present situation where the references are conspicuously silent as to the problem addressed and solved by the claimed invention.

Based upon the foregoing it should be apparent that a prima facie basis to deny patentability to the claimed invention has not been established for lack of the requisite factual basis and want of the requisite realistic motivation. Moreover, there is a potent indicium of non-obviousness which the Examiner failed to consider.

It is well settled that the problem addressed and solved by the claimed invention must be given consideration in resolving the ultimate legal conclusion of obviousness under 35 U.S.C. § 103. *North American Vaccine, Inc. v. American Cyanamid Co.*, 7 F.3d 1571, 28 USPQ2d 1333 (Fed. Cir. 1993); *Northern Telecom, Inc. v. Datapoint Corp.*, 908 F.2d 931, 15 USPQ2d 1321 (Fed. Cir. 1990); *In re Newell*, 891 F.2d 899, 13 USPQ2d 1248 (Fed. Cir. 1989); *In re Nomiya*, 509 F.2d 566, 184 USPQ 607 (CCPA 1975). It should be apparent from the present specification that the problem addressed and solved by the claimed invention resides in formulating an absorbing paper which will selectively absorb oxidized sebum from other types of sebum. That problem is not recognized by the applied prior art. This being the case, the problem addressed and solved by the claimed invention must be given consideration as a potent indicium of nonobviousness under 35 U.S.C. § 103.

The Examiner has failed to establish a prima facie basis to deny patentability to the claimed invention under 35 U.S.C. § 103 for lack of the requisite factual basis and want of the requisite realistic motivation. Moreover, upon giving due consideration to the problem of selectively absorbing oxidized sebum from other types of sebum which is addressed and solved by the claimed invention, and the failure of the applied prior art to appreciate that problem, the conclusion appears inescapable that one having ordinary skill in the art would **not** have found the **claimed subject matter as a whole**, obviousness within the meaning of 35 U.S.C. § 103. *Jones v. Hardy*, 727 F.2d 1524, 220 USPQ 1021 (Fed. Cir. 1984).

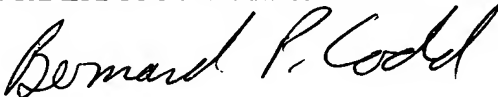
Conclusion

Based upon the arguments submitted supra, Appellants respectfully submit that the Examiner's rejection under 35 U.S.C. § 103 is not legally viable. Appellants, therefore, respectfully solicit the Honorable Board to reverse the Examiner's rejections of claims 1-3 as obvious as evidenced by EP '723, JP '336, Fujii et al., JP '628 or JP '411.

To the extent necessary, a petition for an extension of time under 37 C.F.R. § 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account 500417 and please credit any excess fees to such deposit account.

Respectfully submitted,

McDERMOTT WILL & EMERY LLP



Bernard P. Codd  
Registration No. 46,429

600 13<sup>th</sup> Street, N.W.  
Washington, DC 20005-3096  
(202) 756-8000 BPC:kap  
**Date: May 17, 2006**  
Facsimile: (202) 756-8087

**CLAIMS APPENDIX**

**APPEALED CLAIMS:**

1. A sebum absorbing paper used for applying to skin or for cleaning the skin, comprising:  
1 to 30 % by weight inorganic filler, said inorganic filler comprises 50 to 100 % by weight hydroxyapatite, wherein  
the paper has a basis weight of 5 to 25 g/m<sup>2</sup> and selectively capable of absorbing oxidized sebum from other types of sebum.
2. A sebum absorbing paper according to Claim 1, wherein an average particle size of said inorganic filler is 0.5 to 8 µm.
3. A sebum absorbing paper according to Claim 1 or 2, wherein said inorganic filler comprises 0.5 to 50 % by weight talc having the average particle size of 0.5 to 8 µm.

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## **EVIDENCE APPENDIX**

No extrinsic evidence is relied on in this Appeal Brief.

**RELATED PROCEEDINGS APPENDIX**

Appellants are unaware of any related proceedings.